

SERVICE PRESENTING APPARATUS, SERVICE PRESENTING  
METHOD, STORING MEDIUM, NETWORK SYSTEM, CHARGING  
APPARATUS, CHARGING METHOD AND COMPUTER PROGRAM

5 BACKGROUND OF THE INVENTION

Field of the Invention

10 The present invention relates to a service  
presenting apparatus, a service presenting method, a  
storing medium, a network system, a charging apparatus,  
a charging method and computer program and permits  
payment and collection of charge by utilizing portable  
terminals such as a cellular phone.

Related Background Art

15 In recent years, service in which various  
information data can be picked up from information  
terminals installed at convenience stores has been  
provided. Heretofore, in many cases, when the  
information is displayed on a display of the  
information terminal or is printed out as output, by  
20 displaying and printing-out advertisement together, the  
company presenting such advertisement was burdened with  
charge for user's utility (charge such as charge for  
utility of information terminal or information charge)  
and the user was not requested for such charge.

25 Recently, many information have had high added  
value and information charges has been increased  
accordingly. Thus, only the advertisement fee is

insufficient to compensate for the information charge,  
and the charge for utility is often requested to the  
user.

However, when the charge for utility is paid,  
5 although it is considered that the user pays cash, in  
such a case, the user must introduce the cash into a  
machine or must pay the cash at the convenience store,  
which makes the payment of the charge troublesome under  
certain conditions.

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#### SUMMARY OF THE INVENTION

The present invention aims to solve the above-  
mentioned problem, and an object of the present  
invention is to permit the user to pay his charge by  
15 utilizing a portable terminal such as a cellular phone  
which has been widely popularized.

A service presenting apparatus according to the  
present invention for presenting predetermined service  
in accordance with an operation of the user comprises  
20 input means for inputting access information of a  
portable terminal, access means for effecting access to  
the portable terminal in accordance with the access  
information inputted by the input means, receiving  
means for receiving predetermined information from the  
25 portable terminal by effecting the access to the user's  
portable terminal via the access means, and processing  
means for effecting predetermined processing in

accordance with the predetermined information.

Further, a service presenting method according to the present invention for presenting predetermined service in accordance with an operation of the user comprises an input step for inputting access information of a portable terminal, an access step for effecting access to the portable terminal in accordance with the access information inputted by the input step, a receiving step for receiving predetermined information from the portable terminal by effecting the access to the user's portable terminal via the access step, and a processing step for effecting predetermined processing in accordance with the predetermined information.

Further, a storing medium according to the present invention for storing a computer program capable of carrying out a service presenting method for presenting predetermined service in accordance with an operation of the user comprises a program code for an input step for inputting access information of a portable terminal, a program code for an access step for effecting access to the portable terminal in accordance with the access information inputted by the input step, a program code for a receiving step for receiving predetermined information from the portable terminal by effecting the access to the user's portable terminal via the access step, and a program code for a

processing step for effecting predetermined processing in accordance with the predetermined information.

Further, according to the present invention, there is provided a computer program capable of carrying out a service presenting method for presenting predetermined service in accordance with an operation of the user comprises a program code for an input step for inputting access information of a portable terminal, a program code for an access step for effecting access to the portable terminal in accordance with the access information inputted by the input step, a program code for a receiving step for receiving predetermined information from the portable terminal by effecting the access to the user's portable terminal via the access step, and a program code for a processing step for effecting predetermined processing in accordance with the predetermined information.

Further, according to the present invention, there is provided a network system in which a server computer and a terminal is interconnected via a network and which is designed to present predetermined service in accordance with an operation of the user, comprising charge processing means for effecting processing for deducting the charge from his account of a banking organ to which he contracts regarding his portable terminal.

Further, according to the present invention, there

is provided a service presenting apparatus for presenting predetermined service in accordance with request of the user, comprising charge processing means for effecting processing for deducting the charge from  
5 his account of a banking organ to which he contracts regarding his portable terminal.

Further, according to the present invention, there is provided a charging apparatus for collecting the charge when predetermined service is presented in  
10 accordance with request of the user, comprising charge processing means for effecting processing for deducting the charge from his account of a banking organ to which he contracts regarding his portable terminal.

Further, according to the present invention, there is provided a charging method for collecting the charge  
15 when predetermined service is presented in accordance with request of the user, comprising a procedure for deducting the charge from his account of a banking organ to which he contracts regarding his portable  
20 terminal.

Further, according to the present invention, there is provided a storing medium readable by a computer and adapted to store a program for executing processing for collecting the charge when predetermined service is  
25 presented in accordance with request of the user, wherein processing for deducting the charge from his account of a banking organ to which he contracts

regarding his portable terminal is carried out.

Further, according to the present invention, there is provided a computer program which is stored in a storing medium readable by a computer and adapted to store a program for executing processing for collecting the charge when predetermined service is presented in accordance with request of the user, wherein processing for deducting the charge from his account of a banking organ to which he contracts regarding his portable terminal is carried out.

In the above-mentioned present invention, when the predetermined service is received by the user, payment can be performed by utilizing the portable terminal.

Other features and advantages of the present invention will be apparent from the following description taken in conjunction with the accompanying drawings, in which like reference characters designate the same or similar parts throughout the figures thereof.

#### BRIEF DESCRIPTION OF THE DRAWINGS

The accompanying drawings, which are incorporated in and constitute a part of the specification, illustrate embodiments of the invention and, together with the description, serve to explain the principles of the invention.

Fig. 1 is a view showing an entire construction of

a network system according to an embodiment of the present invention;

Fig. 2 is a flow chart showing a processing operation of the network system;

5 Fig. 3 is a view showing an example of a displayed picture plane on a display of an operating portion 108 of a multi-function machine;

Fig. 4 is a view showing another example of a displayed picture plane on the display of the operating portion 108 of the multi-function machine;

Fig. 5 is a view showing a further example of a displayed picture plane on the display of the operating portion 108 of the multi-function machine; and

Fig. 6 is a view for explaining authentication processing.

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Preferred embodiments of the present invention will now be described in detail in accordance with the accompanying drawings.

Fig. 1 is a view showing an entire construction of a network system according to an embodiment of the present invention. The system includes a network 100 such as a internet, a server computer 101 connected to the network 100 and adapted to present specific service to the user for pay, and a terminal 103 of a contract company to which the user contracts regarding his

portable terminal.

5 The system further includes a fire wall 104 which serves to connect interior of LAN network shown below the fire wall and to perform security management, a device management server 105 which serves to perform management of devices 106 to 115 connected via the LAN network, user management and data management such as charge information, and a file server 106 which serves to perform advertisement data management and to output  
10 the advertisement data to a multi-function machine 107 or a printer 115.

15 The multi-function machine 107 has functions such as user interface for extracting information and input/output of an image. In the illustrated embodiment, the multi-function machine 107 corresponds to a terminal, a service presenting apparatus and the like defined in the present invention.

20 The multi-function machine 107 includes an operating portion 108, a device controller 109, an image scanner 110, a printer 111, a memory 112, a hard disk 113, and a modem 114 for connection to a public telephone circuit. The operation portion 108 is manipulated by the user and is constituted by a display and a touch panel, for example. The device controller  
25 109 serves to perform control of input/output of image data between the scanner 110, printer 111, memory 112 and hard disk 113 on the basis of instruction from the

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5           The image scanner 110 serves to input an image in accordance with instruction from the operating portion 108 or a personal computer (not shown). The printer 111 serves to print data from the file server 106 or a personal computer (not shown).

The reference numeral 116 denotes a cellular phone possessed by the user and utilizing the multi-function machine 107.

Fig. 2 is a flow chart for explaining the  
processing operation of the multi-function machine 107  
in the network system according to the illustrated  
embodiment.

When the user retracts fee-charging information from the server computer 101 via the multi-function machine 107, the multi-function machine 107 requests for selection of payment way of charge for utility (use charge and information charge) via the display of the

operating portion 108 (step S201). Fig. 3 shows an example of a displayed picture plane displayed on the display of the operating portion 108 of the multi-function machine 107. The user selects either one of  
5 payment ways ("1. payment by utilizing his portable terminal", "2. payment via credit card" or "3. payment with cash at check-out counter") by manipulating an OK button or a cancel button.

If the user has the cellular phone 116 and "1.  
10 payment by utilizing his portable terminal" is selected, as shown in Fig. 4, input of a telephone number of the cellular phone 116 is requested via the display of the operating portion 108 (step S202). The user inputs his telephone number of the cellular phone  
15 116 by manipulating numeral-key. The telephone number of the cellular phone 116 corresponds to access information defined in the present invention.

When the telephone number is inputted, the device controller 109 calls the inputted telephone number by  
20 using the modem 114 (step S203). In this case, as shown in Fig. 5, the message "connecting to your phone" is displayed on the display of the operating portion 108.

When the user's cellular phone 116 is connected, for example, as shown in Fig. 6, authentication  
25 processing regarding deduction of charge for utility from user's account of a banking organ to which he

contracts regarding his portable terminal is effected via voice message (step S204). If affirmative, the user depresses a button "1" of his cellular phone, and, if negative, a button "9" is depressed.

5           When the device controller 109 receives the user's  
agreement from his cellular phone via the modem 114,  
the connection to the cellular phone 116 is  
interrupted, and access to the terminal at the cellular  
phone contract company is effected via the network 100.  
10   Then, the agreement between the user and the contract  
company regarding the deduction of charge for utility  
from user's account of the banking organ to which he  
contracts regarding his portable terminal is notified  
(step S205).

15           On the other hand, if "2. payment via credit card"  
is selected by the user via the operating portion of  
the multi-function machine, ID number of the user's  
credit card and card company are inputted via the  
operating portion of the multi-function machine, and  
20   the multi-function machine 107 performs access to the  
authentication server of the card company inputted by  
the user via the network 100, thereby effecting similar  
authentication between the credit company and the  
multi-function machine 107.

25           Thereafter, in accordance with the user's  
manipulation of the operating portion 108, the multi-  
function machine 107 effects access to desired database

(step S206), and, count-up of the charge for utility and information charge is effected whenever access to database for pay is performed (step S207).

5 If the user's operation is finished (step S208), the multi-function machine 107 effects access to the terminal 102 at the cellular phone (116) contract company via the network 100 (step S209) and requests the counted-up charge (step S210).

10 When the charge transactions between the cellular phone (116) contract company and the multi-function machine 107 is completed, the device controller 109 calls the user's cellular phone 116 again via the modem 114 to notify the charge for utility (step S211). In this way, the processing is ended.

15 (Other embodiments)

Other than the authentication processing explained in connection with the step S204 in Fig. 2, the phone company may have an authentication center function for effecting authentication. In this case, since the steps S201 to S203 are the same as the aforementioned steps, explanation thereof will be omitted. When the multi-function machine 107 is connected to the user's phone, the multi-function machine 107 sends to the user's cellular phone data such as the name of the authentication center of the cellular phone company from which the charge for utility can be deducted, and such data is displayed on the display of the cellular

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The user selects the authentication center of the cellular phone company to which he contracts among the plurality of authentication centers of the cellular phone companies displayed on the display via the operating portion of the phone and disconnects from the multi-function machine 107.

In this case, the multi-function machine 107 sends the user's phone number and unique address of the multi-function machine 107 to the authentication center.

If the user's agreement is obtained, access to the

multi-function machine 107 is effected via the network 100. The device controller of the multi-function machine 107 receives, via the modem 114 from the authentication center of the cellular phone company, notice of authentication between the user and the phone company regarding the deduction of charge for utility from user's account of the banking organ to which he contracts regarding his cellular phone. Thereafter, since steps are the same as the steps S206 and so on in Fig. 2, explanation thereof will be omitted.

Other than the above, other organ such as a bank may perform authentication.

Further, in the illustrated embodiment, while an example that the flow chart shown in Fig. 2 is executed by the multi-function machine 107 was explained, such flow chart may be executed by an combination of the multi-function machine and other device such as the device management server 105.

A technique in which a software program code for realizing the function according to the illustrated embodiment is supplied to a computer (CPU or MPU) of an apparatus or a system to which various devices according to the illustrated embodiment and such various devices are operated in accordance with the program stored in the computer of the apparatus or the system in order to realize the function according to the illustrated embodiment is also included in the

present invention.

In this case, since the function according to the illustrated embodiment is realized by the software program code itself, the software program code itself and means for supplying the software program code to the computer (for example, storing medium for storing the program code) constitute the present invention. The storing medium for storing the program code may be, for example, a floppy disk, a hard disk, an optical disk, a photomagnetic disk, CD-ROM, a magnetic tape, a non-volatile memory card, ROM or the like.

Further, also when not only the function according to the illustrated embodiment is realized by executing the program code supplied to the computer, but also the function according to the illustrated embodiment is realized by cooperating the program code with OS (operating system) running on the computer or other application, such program code is included in an embodiment of the present invention.

Further, a technique, in which, after the supplied program code is stored in a memory of a function expansion board of the computer or of a function expansion unit connected to the computer, the actual processing is performed partially or totally by a CPU of the function expansion board or the function expansion unit, thereby realizing the function according to the illustrated embodiment is also

included in the present invention.

Incidentally, it should be noted that configurations and constructions of various elements shown in the illustrated embodiment are merely example  
5 and do not limit the technical range of the present invention. That is to say, the present invention can be embodied in various ways without departing from the scope of the invention.

As mentioned above, according to the present  
10 invention, when the user acquires predetermined service, the charge can be paid by utilizing the user's portable terminal such as the cellular phone. Nowadays, the portable terminals such as the cellular phones have widely been popularized, and, in almost all  
15 cases, since the user has the cellular phone by himself, for example, so long as the payment using the portable terminal according to the present invention is permitted without cash payment at the convenience store, the user can acquire any service easily and  
20 conveniently.